Date: Sun, 2 Oct 94 04:30:14 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: List
Subject: Ham-Ant Digest V94 #327
To: Ham-Ant

Ham-Ant Digest   Sun, 2 Oct 94   Volume 94 : Issue 327

Today's Topics:

Antenna ???'s: Longer coax or shorter antenna?
Antennas are prohibited ...!!!!!!!!! (2 msgs)
Interference from computer causing receive problems
Phased Triangle Array 80M? (2 msgs)
Three Monobanders for Sale
using twin coax vs ladder line (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: 1 Oct 1994 01:01:59 GMT
From: dbarton@emoryu1.cc.emory.edu ( )
Subject: Antenna ???'s: Longer coax or shorter antenna?

posted this to the wrong group first time. Still looking for help...

dbarton@unix.cc.emory.edu wrote:
: Greetings fellow hams. I have a technical question regarding the setup
: for my first installation. I will be setting up an SGC-2000 HF rig
: which will be used with an antenna tuner, and (probably) a 26' whip
: antenna. I would also like to set up a VHF antenna to attach to my
: HTX-202, and hoped for future VHF base/mobile unit.

: The physical layout is as follows: The highest point on the roof is the
: chimney, and I would like to strap the mounting clamps for the antenna(s)
: to this. The only other alternative is mounting the bracket *behind* the
: eaves (this is a condo, and there can be no external scars when the

: antennas are removed in about a year). The problem is this. There is a
: good mounting site outside the window where the equipment will be, but
: that room is on the opposite side of the building from the aforementioned
: chimney. My question is, where is the point of diminishing returns for
: length of coax vs. height of antenna? If I mount the antenna(s) on the
: eaves outside the window where the equipment will be, I can get away with
: 15 feet of coax at the outside. If I mount the antenna on the chimney, I
: get approximately 6 more feet of height, but it will require about 60
: feet of coax. I know from my fledgling study (Tech- license) that the
: shorter the coax the better, but how much do I gain in performance with
: that extra 6 feet of altitude?

: A few other details of note, the building is near sea level, next to
: Mission Bay in San Diego, CA. There are hills close by (within 5 miles)
: in basically all directions, but the building has two stories, and is
: equivalent in height to the tallest buildings within sight range.

: I do have one other question. It will likely be necessary to sink a
: ground rod. Assuming that I will be able to mount the antenna on the
: chimney, it will be an advantage to place the ground rod on the same side
: of the building. Is it ok to run a ground wire for the equipment back to
: that side of the building, or will it be necessary to sink another ground
: where the equipment will be? Is this even possible, or do the antenna
: and the equipment need to be attached to the same ground for
: safety/propogation reasons?

: Many thanks for any and all help, e-mail responses are welcome, and I do
: check this group often if e-mail is not possible.

: On the road to General class...

: Doug
: KE6LZM

Date: Sat, 1 Oct 1994 06:50:37 GMT
From: ghiscox@netcom.com (George L. Hiscox)
Subject: Antennas are prohibited ...!!!!!!!!!

Roderick Padilla (cisrmp@gsusgi2.gsu.edu) wrote:
: I live in a subdivision that WILL not accept any kind of outdoors antennas. I
: need to know the best solution to install 2M antenna without going "ilegal".

: /Roderick Padilla
: wp4-boc
Here are a couple of ideas:

1. Get some metal foil tape similar to that used in leaded glass work or in taping window glass for security applications. Build you antenna on the inside of the window glass as high up as you can get it (2nd floor?). Consider a j-pole configuration.

2. Check out the CQ Magazine article by Lew McCoy on building a two meter j-pole from several feet of 400 ohm "ladder line." That would be the July '94 issue of CQ Magzine pg. 50 "More Bang For The Buck." This type of antenna can be hung up when you need it and rolled up out of the way at other times. In any case, it's a good idea for portable and/or public service applications.

3. A friend of mine in a similar situation built two quagi style antennas in his attic pointed in different directions. The length of the booms and the support structure for the roof made it impossible to rotate a single antenna, so he uses a switch between the two antennas to change the radiation pattern. He later added a third quagi outside which is disguised as part of his patio cover! His condo is single story and the high gain of that particular antenna design in part makes up for the lower elevation.

4. The same kind of metallic tape described in the window antenna could also be used on the back of a wooden door to make a two or three element yagi. If you used an upstairs closet door you would get a directional gain antenna that would be useable through 180 degrees. It's not perfect, but neither is living in a building with antenna restrictions.

5. There is always the mobile mag-mount 5/8 wave on top of the ice box...

Good luck, Mr. Phelps!

73, George/WA6RIK@WB6YMH ghiscox@netcom.com Garden Grove, CA

Date: Sat, 01 Oct 1994 19:10:14 GMT
From: dzatopek@homer.win.net (David Zatopek)
Subject: Antennas are prohibited ...!!!!!!!!!

additional two meter antenna tips from an
apartment dweller:

1. indoor 1/4 wave ground plane, located on an
exterior wall, facing the direction you want is
great...by carefully selecting the location, you
can avoid sheilding from the rest of building.

i use a similar antenna, indoors for 435, and have

had some sucess with fo20, work rs10, mir easily
with 2 m ground plane...even worked the shuttle
on voice and have full access to local packet
system.

2. outdoor hidden antennas are easy to do
too...for example, the same ground plane could be
located on a short mast on a rear of house vent
pipe would work fine...with mast and radials
painted to match roof color and vertical painted
light blue or even white, the antenna would
pactically be invisible. use small wire, like
#12 or #10 for elements...i've found that even
our texas storms do little to damage antenna.

73 de dave

David Zatopek, KT5V dzatopek@homer.win.net

Date: 1 Oct 1994 17:35:16 GMT
From: Henry Wertz <Henry@chop.isca.uiowa.edu>
Subject: Interference from computer causing receive problems

In note <36b3g6$ng3@kralizec.zeta.org.au>, somlo@kralizec.zeta.org.au (Peter
Somlo) writes:
>Shielding a computer is very difficult, but if you could put the whole compu-
>ter with all its peripherals in a metal box (and rf filter all the leads
>incl. the power cables), in principle you could do it, but my point is
>that there is no need to use lead (this is not atomic radiation, but RF),
>so alum. or copper would do, and the metal used can be very thin (as long
>as it is several skin depth), i.e. 1/64" would be fine.
>Cheers.
>(PS computers should really be used in screened rooms - mine radiates like
>hell!)
     Get an IBM PC/XT case 8-).. Seriously. Before, I could get one station
on my TV, and one *LOCAL* radio staition (out of about five) with the computer
on. With this case, I can get ABC, NBC, Fox, Iowa Public Television (oh boy..
) .. still can't get CBS with it on, but hey, it's like 6 feet away from the
computer, and CBS here is channel 2.. everything interferes with those below
channel 7 for some reason 8-). On radio, I can get everything I can with the
computer off, no noise at all..
     Besides, it is really fun to have people go up to your computer say,
"Wow, what a piece of sh*t" pratically, then turn it on and find out it's like
a modern computer 8-). It looks really impressive too 8-).
>Dr Peter I Somlo FIEEE | Motto1: "Every coin has 3 sides - at least"

>Microwave Consultant | Motto2: "Beware of windsurfing - it's addictive"
>tel/fax: 61-2-451-2478 | Internet: somlo@kralizec.zeta.org.au

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Date: 1 Oct 1994 00:37:13 GMT
From: garyk9gs@solaria.mil.wi.us (Gary T. Schwartz)
Subject: Phased Triangle Array 80M?

I am interested in finding out if anyone has built a phased vertical
triangle array for 80M?? This is similar to a 4-square array but uses
only three elements. I was intrigued by the description in the latest
edition of ON4UN's book, Low Band DX'ing. In the book, he describes an
80M array suspended from the top of his 150 ft tower. Each element used a
single elevated radial to establish the ground plane. My idea would use
essentially the same arrangement (but 3 elements instead of 4) but the
elements would each be a top-loaded 1/4 wave vertical with one or more
elevated radials. I was wondering if anyone had a way to switch
directions similar to the way switching is done on a typical
4-square....any ideas??

73 Gary K9GS
garyk9gs@solaria.sol.net

Date: Sat, 1 Oct 1994 07:06:13 GMT
From: mswmod@nimbus.sage.unr.edu (Monte Stark)
Subject: Phased Triangle Array 80M?

Before you invest all the time and labor getting a 3 ele
80m phased array up, find someone who has some old Ham
Radio mags. You need May 83 to May of 84.

This is a work by Forrest Gehrke and is the best I have
seen on phased arrays.

I used a 2 ele array on 40m and it worked great. Tried
a 3 ele and it was a bust. JUST LIKE Forrest predicts!
Arrays of more than 2 ele can be made to work super, but
not without lots of planning and work.

2 ele arrays seem to work well in spite of my efforts!

73's & gl, Ron
--

.....KU7Y.....

.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

Date: 28 Sep 1994 16:37:55 GMT
From: ys@isr.harvard.edu (Yuzuru Suzuki)
Subject: Three Monobanders for Sale

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*****************************************************************
*                                                               *
*     Three  Monobanders  (20, 15, and 10 Meters)  for  Sale    *
*                                                               *
*****************************************************************
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Harvard Wireless Club W1AF of Harvard University would like to sell
our three monobanders (20, 15, and 10 meters) which we just replaced
by a log periodic dipole array.

  * Manufactured by TEL-REX
  * Each monobander has 35-foot boom.
  * A few years old
  * Asking for $1,000 for a whole set
    (A brand new set would cost $1,800.)

These antennas are currently on the roof of the three-story building.
Unfortunately, we can not perform disassembling or shipping for you,
so we would like you to come to our building and take them. Our
building is located at 6 Linden Street, Cambridge, MA 02138. It is
just a few blocks from Harvard Square.

If you are interested, please send your e-mail directly to me:

Yuzuru Suzuki, AA1JA (ys@isr.harvard.edu)

Date: 30 Sep 1994 20:20:06 -0400
From: jimn0oct@aol.com (JimN0OCT)
Subject: using twin coax vs ladder line

In article <QE8C2CDD@bxc604>, bcantin@foxboro.COM (Bill A. Cantin) writes:

I am new to ham radio. I entered as a no-code tech. and now are planning
to
upgrade to General. I am building an hf antenna and another ham told me

about seeing an antenna a long time ago that was using two coax lines to
feed vs. open line. Can anyone shed any light on this? Would it be better
than open line feed and how you would make the connection to both the
antenna and the radio?
73 Bill N1QEU

Open wire balanced line will work better, unless you plan on burying your
feed line or running it by metal objects (gutters, etc.). Here the twin
coax idea has the advantage. If you can avoid the metal and the ground,
use open wire ("ladder") line.

72, jim n0oct

Date: 1 Oct 1994 03:44:15 GMT
From: buster@usr1.primenet.com (Lou Nigro)
Subject: using twin coax vs ladder line

Bill A. Cantin (bcantin@foxboro.COM) wrote:
: I am new to ham radio. I entered as a no-code tech. and now are planning to
: upgrade to General. I am building an hf antenna and another ham told me
: about seeing an antenna a long time ago that was using two coax lines to
: feed vs. open line. Can anyone shed any light on this? Would it be better
: than open line feed and how you would make the connection to both the
: antenna and the radio?

Bill -

I am using two coax lines as a feed for a full wave 80 meter loop. It's
known as shielded open wire and works great. The antenna is fed through
a tuner and a unbalanced to balanced bauln. The output of the tuner is
fed to a short length of RG8 that goes into the bauln, which is located
just outside the shack. The output of the bauln is balanced and feeds
the two lengths of RG8 coax.

There are some advantages to using this method over standard open wire -
1. - You can route the coax much easier since it does not have to be
spaced away from the tower, mine is taped to the tower itself.

2. - Noise pickup on the transmission is reduced.

3. - Feedline is very weather resistant, if you use good coax.

One of the recent ham mags had a quickie writeup on it, if I find it

again, I will pass the info along.

The antenna has been used on 40 and 80 for a number of years with
excellent results.

Lou Nigro - KW7H

End of Ham-Ant Digest V94 #327
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